

IN THE CLAIMS

1.-6. Canceled

7. (Currently Amended) An apparatus for cooling filaments in a filament forming process, the filaments attenuated from a bottom plate of a bushing, the apparatus comprising:
a bushing having a generally planar bottom plate;
an air nozzle operable to conduct the flow of air;
a fluid nozzle operable to conduct the flow of liquid at the same time said air nozzle conducts said flow of air, said fluid nozzle being positioned downstream of said air nozzle;
and
a gathering shoe to gather said filaments into a strand,
wherein said air and fluid nozzles point downwardly away from the bushing bottom plate.

8.-10. Canceled

11. (Previously Presented) The apparatus of claim 7, wherein the fluid nozzle emits water, and further comprising:
a first manifold coupled to said air nozzle to convey air thereto; and
a second manifold coupled to said fluid nozzle to convey water thereto.

12. (Previously Presented) The apparatus of claim 7, further comprising:
a size applicator.

13. (Previously Presented) The apparatus of claim 12, wherein said air nozzle is directed toward a filament forming region between said bottom plate and said size applicator and in a direction downstream along the filaments relative to a plane parallel to said bushing bottom plate.

14. (Previously Presented) The apparatus of claim 13, wherein said air nozzle is oriented at an angle relative to said plane, the angle being in the range of 0 to 35 degrees.

15.-27. Canceled

28. (Currently Amended) An apparatus for cooling filaments in a filament forming process comprising:

a bushing having a bottom plate;

an air nozzle operable to conduct a flow of air, said air nozzle being located at a first position;

a fluid nozzle operable to spray a fluid at the same time said air nozzle conducts said flow of air, said fluid nozzle being located at a second position downstream of said air nozzle, and

a size applicator;

a gathering shoe to gather said filaments into a strand,

wherein said air nozzle and said fluid nozzle are positioned upstream of the size applicator, wherein said air nozzle and said fluid nozzle are positioned downstream of said bushing, and wherein said air and said fluid nozzles point downwardly away from the bushing bottom plate.

29. (Previously Presented) The apparatus of claim 28, wherein the air nozzle does not emit water.

30. (Previously Presented) The apparatus of claim 7, wherein the air nozzle does not emit water.

31. (Currently Amended) An apparatus for cooling filaments in a filament forming process comprising:

a bushing having a bottom plate from which filaments emanate;

an air nozzle located at a first position, said air nozzle being operable to conduct compressed air to cool filaments that emanate from the bottom plate of the bushing;

a fluid nozzle operable to spray a fluid at the same time said air nozzle conducts said compressed air, said fluid nozzle being located adjacent the filaments at a second position downstream of said air nozzle;

a size applicator downstream of the fluid nozzle; and

a gathering shoe to gather the filaments into a strand.

32. (Previously Presented) The apparatus of claim 31, wherein the air nozzle does not emit water.

33. (Previously Presented) The apparatus of claim 31, wherein the air and fluid nozzles emit water.

34. (Currently Amended) An apparatus for cooling filaments in a filament forming process comprising:

a bushing having a bottom plate from which filaments emanate;

an air nozzle operable to conduct the flow of air located at a first position to cool and dry the filaments; and

a fluid nozzle operable to spray a fluid located at a second position downstream of said air nozzle at the same time said air nozzle conducts said flow of air.

35. (Currently Amended) An apparatus for cooling filaments in a filament forming process comprising:
- a bushing having a bottom plate from which filaments emanate;
 - means for emitting air to the filaments emanating from the bottom plate;
 - means for emitting fluid to the filaments at the same time said means for emitting air emits air, said means for emitting fluid being positioned downstream of the means for emitting air;
 - a size applicator downstream of the means for emitting fluid to the filaments; and
 - a gathering shoe for gathering said filaments into a strand.
36. (Previously Presented) The apparatus of claim 35, wherein the means for emitting air comprises an air nozzle operable to conduct the flow of air.
37. (Previously Presented) The apparatus of claim 35, wherein the means for emitting fluid comprises a water nozzle operable to conduct the flow of water.
38. (Previously Presented) The apparatus of claim 34, further comprising:
- a size applicator downstream of the fluid nozzle; and
 - a gathering shoe for gathering said filaments into a strand.
39. (Currently Amended) An apparatus for cooling filaments in a filament forming process comprising:
- a bushing having a bottom plate from which filaments emanate; and
 - at least one atomizer nozzle operable to spray an atomized liquid; and
a gathering shoe to gather said filaments into a strand,
- wherein said at least one atomizer nozzle is positioned downstream of said bushing and is oriented to convey said atomized liquid to said filaments.
40. (Previously Presented) The apparatus of claim 39, wherein said at least one atomizer nozzle is directed toward said filaments at an angle relative to a plane parallel to said bushing bottom plate, said angle being in the range of 0 to 35 degrees.

41. (Previously Presented) The apparatus of claim 40, wherein said at least one atomizer nozzle comprises a single row of atomizer nozzles.

42. (Previously Presented) The apparatus of claim 41, wherein said liquid is water.

43. (Previously Presented) The apparatus of claim 39, further comprising a size applicator;

wherein said at least one atomizer nozzle is positioned upstream of said size applicator.

44. (Currently Amended) The apparatus of claim 43, wherein a front side of said apparatus is a side of said apparatus where said filaments contact said size applicator and a back side of said apparatus is the opposing side of said apparatus;

_____ wherein said at least one atomizer nozzle is positioned at a primary position at said a front side location of said apparatus; and

wherein said at least one atomizer nozzle is positioned downwardly away from said bushing plate and is directed toward said filaments.

45. (Currently Amended) The apparatus of claim 43, wherein a front side of said apparatus is a side of said apparatus where said filaments contact said size applicator and a back side of said apparatus is the opposing side of said apparatus;

_____ wherein said at least one atomizer is positioned at said back side a secondary position at a rear location of said apparatus; and

wherein said at least one atomizer is directed upwardly toward said bushing plate and is directed toward said filaments.

46. (Currently Amended) The apparatus of claim 43, further comprising:

a first manifold connected to said at least one atomizer to convey water thereto; and
_____ a second manifold connected to at least one atomizer to convey compressed air thereto.

47. (Currently Amended) An apparatus for cooling filaments in a filament forming process comprising:

a bushing having a bottom plate from which filaments emanate;

a row of atomizer nozzles operable to spray an atomized liquid;

a size applicator; and

a gathering shoe to gather said filaments into a strand;

a first manifold connected to said row of atomizer nozzles to convey a compressed gas thereto; and

a second manifold connected to said row of atomizer nozzles to convey a liquid thereto,

wherein said row of atomizer nozzles is positioned downstream from said bushing and upstream of said size applicator at an orientation relative to a horizontal plane parallel to said bottom plate of said bushing to convey said atomized liquid to said filaments.

48. (Previously Presented) The apparatus of claim 47, wherein said liquid is water and said compressed gas is air.

49. (Previously Presented) The apparatus of claim 48, wherein said orientation is an angle from 0 to 35 degrees.

50. (Previously Presented) The apparatus of claim 47, wherein said row of atomizer nozzles is positioned at a primary position at a front location of said apparatus; and

wherein said row of atomizer nozzles is positioned downwardly away from said bushing plate and is directed toward said filaments.

51. (Previously Presented) The apparatus of claim 47, wherein said row of atomizer nozzles is positioned at a secondary position at a rear location of said apparatus; and

wherein said row of atomizer nozzles is directed upwardly toward said bushing plate and is directed toward said filaments.

52. (Previously Presented) The apparatus of claim 28, wherein said bottom plate of said bushing attenuates the filaments, and said first position is closer to said bottom plate than said second position.

53. (Previously Presented) The apparatus of claim 28, wherein said fluid nozzle is an atomizer nozzle.

54. (Previously Presented) The apparatus of claim 28, wherein the fluid nozzle emits water, said apparatus further comprising:

a first manifold, said air nozzle being coupled to said first manifold to convey air thereto; and

a second manifold, said fluid nozzle being coupled to said second manifold to convey water thereto.